Get to Know Us

Your National Weather Service (NWS) Office

http://www.weather.gov

Get to know the agency producing general forecasts and the Terminal Aerodrome Forecast (TAF) products used to indicate upcoming weather at specific airports.

The Aviation Weather Center (AWC)

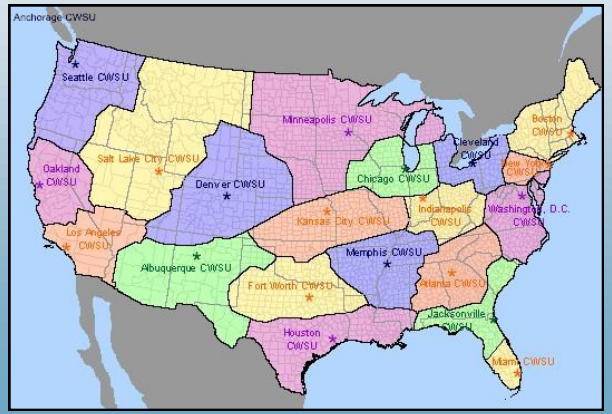
http://www.aviationweather.gov

The AWC is located in Kansas City, Missouri, and is responsible for various aviation related guidance.

Center Weather Service Units (CWSU)

http://aviationweather.gov/products/cwsu/

CWSUs are responsible for issuing statements of flight hazards (turbulence, icing, low ceilings, etc.).



Friendly Reminders

- No flight is a MUST flight.
- Consideration for additions to plane weight (passengers, baggage, etc.) must be included when evaluating the icing threat.
- Ongoing weather over mountain ranges will drastically increase the difficulty of making a mountain pass.
- Regardless of the experience one has making a specific mountain pass, each situation is different and should receive a full pre-flight evaluation.
- Weather observing equipment is sparse on mountains, so conditions may vary from the forecast.
- Turn around if conditions are deemed too hazardous, especially before making your mountain ascent.
- File your flight plan.
- Respect the mountains!

Contacting Us

National Weather Service

The Aviation Weather Center

Center Weather Service Units

Mountain Flight Planning

Information to help assist pilots on their decision to fly during significant mountain weather.

Why Plan?

Especially for smaller aircraft, navigating mountain passes can be extremely dangerous during the winter months when mountain conditions can change rapidly. Inadequate planning may result in aircraft accidents, or even pilot and/or passenger death. The purpose of this brochure is to encourage pilots to use various National Weather Service products both while creating their initial flight plans, and making the last minute decision on whether to fly.

The Basics

What should be considered when evaluating whether to make a flight that contains a mountain pass?

Expected Weather Conditions

Knowing upcoming weather systems can allow pilots to better determine the best time to fly based on expected presence of icing or turbulence.

Icing

As planes ascend a mountain, atmospheric moisture can accumulate on the body of the plane and freeze resulting in a layer of ice covering the plane's chassis. This ice can add significant weight to a plane, markedly altering the ability for the plane to clear mountain tops.

Turbulence

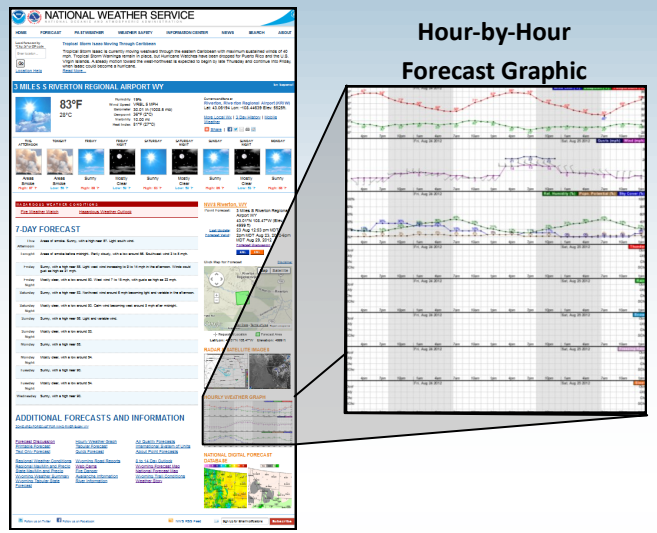
Turbulence is a sudden upward and/or downward movement, usually associated with unsettled air. Turbulence can cause planes to experience sudden loss in altitude, which can have tragic results while traversing mountain tops.

Potential Alternate Airports

Acknowledging alternate airports is important in flight planning. If a mountain pass ends up being too difficult due to weather conditions, pilots should know which alternate airports will be an option for landing.

How Can We Help?

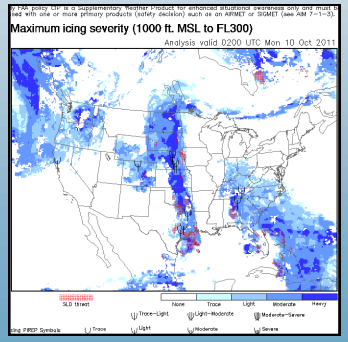
Expected Weather Conditions—Expected weather conditions can be reviewed in hour-by-hour detail, which can help you plan the potential window when mountain pass conditions may be more optimal. The image shows the associated hourly graphic:

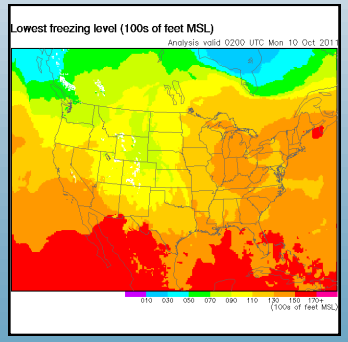


In addition to hourly weather conditions, pilots can determine the potential for significant weather systems expected across the area by keeping track of ongoing watches, warnings or advisories.

Icing—The Aviation Weather Center maintains a webpage solely to evaluate the icing threat across the United States. This page can be found at:

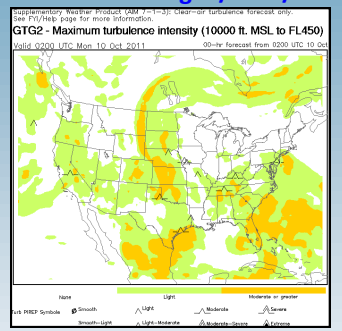
http://aviationweather.gov/adds/icing/





Turbulence—The Aviation Weather Center also maintains a webpage to acknowledge known or expected areas of turbulence. This page can be found at:

http://aviationweather.gov/adds/turbulence/



Potential Alternate Airports—Local National Weather Service Offices issue Terminal Aerodrome Forecasts for various airports across their forecast area. These forecasts can be evaluated by pilots to find a compatible airport that is accessible in emergency situations. These forecasts can be found on the Aviation Weather Center's webpage at:

http://aviationweather.gov/adds/tafs/

Other Products

Center Weather Advisory (CWA): Aviation weather warnings for hazards currently occurring, such as thunderstorms, severe icing or turbulence, and low ceilings and visibility. These products are typically one to two hours in duration.

Meteorological Impact Statement (MIS): 2-24 hour forecasts for imminent weather conditions expected to impact aviation interests.

AIR/SIGMETs: Products issued by the Aviation Weather Center to advise pilots of potentially hazardous weather.

Pilot Reports (PIREPS)—Used to determine the presence of turbulence and icing in-flight, and low-level wind shear at area airports. These reports not only provide critical information to pilots following the same route, but may result in issuance of CWAs, AIRMETs/SIGMETs or amendments to existing ARMETs, SIGMETs, and TAFs issued by the National Weather Service. ***As a pilot, please send in PIREPS whenever potentially hazardous conditions are encountered, or when forecast conditions are not being observed in-flight.***